

# Press Release

Date: 08/04/04

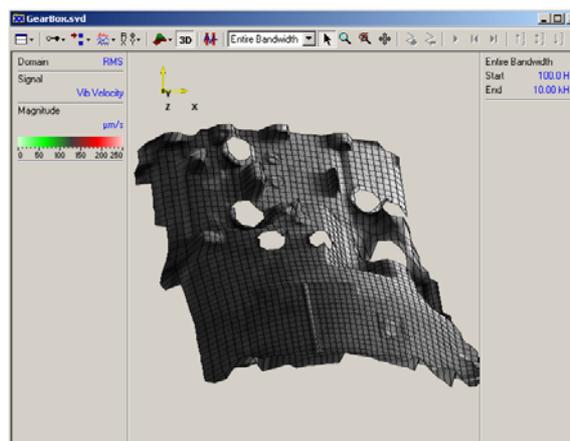
Reference: PR-0037-FFU-240804-PSV4

## New Geometry Scan Unit for Polytec Scanning Vibrometers

The new revolutionary Geometry Scan Unit for the PSV-400 and PSV-400-3D Scanning Vibrometers opens up completely new opportunities for the analysis of structural vibrations.

Polytec Laser Doppler Vibrometers are used to precisely measure mechanical vibrations, quickly, easily and free from mass load, cross-talk or feedback problems. They operate on the Doppler principle, measuring back-scattered laser light from a vibrating structure, to determine its vibrational velocity and displacement.

The new laser-based Geometry Scan Unit acquires 3D geometry data from test objects which are subsequently examined with the Laser-Doppler Method on the sample points of the measured grid. The Geometry Scan Unit is attached to the measurement head of the Scanning Vibrometer and uses the same optical path as the vibrometer measurement beam. The Geometry Scan Unit provides a 3D-geometry model of the test structure within minutes and is extremely useful when no numerical geometry data are available.



Publication free of charge

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Scanning Vibrometry offers all the advantages of a laser vibrometer together with speed, ease of use, laser positioning accuracy and comprehensive data processing in a single automated, turnkey package. Users get a very quick, easily understood and accurate visualization of a structure's vibrational characteristics without the inconvenience of attaching an array of transducers.

A Scanning Laser Doppler Vibrometer includes a compact scanning head, a data management system and powerful software for control of the scanners, data processing and display.

The PSV-400 Scanning Vibrometer measures out-of-plane vibrations and is designed for testing structures in the mm<sup>2</sup> to several m<sup>2</sup> range covering vibration frequencies up to 20 MHz and vibration velocities up to 10 m/s.

The PSV-400-3D Scanning Vibrometer measures the 3D vibration vectors and allows a clear separation of the out-of-plane and in-plane components of the motion.

Scanning Vibrometer Systems are used for applications in the automotive, aviation and aerospace industries, on electrical appliances or machines, and for research and development projects.

Polytec GmbH is providing world class high-tech solutions for the microstructure, data storage, automotive, aerospace, transportation, steel industry, mechanical engineering and scientific research markets for decades. Polytec is known throughout the high-tech world for its leadership in the design and manufacture of laser-based vibration, speed & length measurement instruments.

Global sales offices are located throughout Europe, the United States and Japan.

More information can be found at [www.polytec.com](http://www.polytec.com)

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